

7th gr. Fitness

Muscular Strength and Endurance

Vocabulary:

1. **Atrophy**- a decrease in muscle size and strength.
2. **Contraction**: muscle fiber may shorten, lengthen, or stay the same
3. **Core stability**: exercises that build the muscles of the trunk and help the body maintain a good posture.
4. **Cool down**: series of activities to help the body recover after a workout(allows heart rate to slow down and removes lactic acid from muscles)
5. **Dynamic Strength**: Contraction of muscle fibers with visible movement
6. **Extension**: increase in the angle of a joint
7. **Flexibility**: is the ability of a joint to move freely in every direction or through a full range of motion
8. **Flexion**: decrease in the angle of a joint
9. **Free Weights**: dumbbells, barbells
10. **Hypertrophy**: increase in muscle size and strength
11. **Individual Differences**: each person is unique and should be encouraged to progress at his or her own pace
12. **Joints**: where two bones come together
13. **Muscular Endurance**: ability of the muscles to perform work for a prolonged period of time.
14. **Muscular Strength**: ability of the muscles to produce force against a resistance
15. **Overload**: increasing activity, frequency, intensity, or time to improve fitness levels
16. **Plyometrics**: type of exercise
17. **Power**: muscles ability to produce force quickly
18. **Progression** – amount of overload that should be applied gradually to the muscles to prevent soreness and injury
19. **Regularity**: exercise must be performed on a regular basis to be effective
20. **Resistance training**: exercises using resistance in the form of free weights or machines to develop muscular endurance or strength
21. **Repetitions**: lifting a weight through the full movement of an exercise.
22. **Sets**: specific number of repetitions
23. **Specific**: to develop a certain fitness component or to improve performance in an activity
24. **Static Strength**: Contraction of muscles fibers that produce force where there is no visible movement
25. **Strength Training**: attempting to lift lighter weights using slow controlled repetitions
26. **Weight lifting**: attempting to lift maximum weight in one single effort
27. **Warm-up**: series of activities that prepare the body for more vigorous exercise and helps prevent injury
28. **Workout**: the part of the physical activity program during which a person does activities to improve fitness

FITT PRINCIPLE

FREQUENCY: how often you workout (days in a week)

INTENSITY: how hard you workout (perceived exertion)

TIME: how long you workout

TYPE: kind of exercise you are performing (cardio, muscular endurance, strength, etc)

Training Principles:

Overload Principle: if a person increases any part of the FITT principle to their workouts, the body will adapt to the increase and become will become stronger.

Principle of progression: to achieve a desired fitness result the overload principle should not be increased too fast or too slow.

Principle of regularity: an individual should exercise regularly at least 3 times per week.

Principle of specificity: the development of fitness is very specific, if a person wants to increase cardiovascular endurance and upper body strength, there will need to be specific activities for both areas. You can not increase upper body strength by jogging along. Specific activities are needed for each.

Repetitions versus Set:

The American College of Sports Medicine recommends:

Muscular strength = 8 - 12 reps

Muscular endurance = 10 - 15 reps

At least 1 set of each exercise to fatigue (can't do anymore), average = 3 sets

Rest between sets = 30 sec - 1 min (higher intensity = 3 to 5 min)

Workout Sessions = each muscle group 2 to 3 times per week w/ 2 days rest between for muscles to repair

Pilates (<http://en.wikipedia.org/wiki/Pilates>)

Pilates is a method of total body conditioning that emphasizes proper alignment, centering, concentration, control, precision, and breathing. The benefits of Pilates are:

- increased flexibility
- increased strength
- muscle tone
- body awareness
- increased energy
- improved mental concentration

Yoga - Yogafit (type of Yoga used in class)

It is a combination of hatha yoga and traditional exercises, it was created for the normal everyday person. There is no chanting in this version. Its purpose is provide a balanced, total body and mind workout. The benefits of a yogafit workout are: (Yogafit by Beth Shaw. 2001)

- Increased muscle tone
- Increased flexibility
- Increased body tone
- Reduced stress
- Increased body awareness
- Weight loss
- Improved posture
- Strengthened immune system.

Don't forget to review your muscle sheet!!